score is equal or greater than 62 points (sensitivity: 89.6%, specificity: 83.8%), and BNP is from 509.86 to 1091.42 pg/ml. Besides, the results of retrospective and prospective clinical assess showed all of the sensitivity, specificity and accuracy degree were above 90%, and positive likelihood ratios were almost greater than 10.
Conclusions: The clinical diagnosis criteria of qi-yin-deficiency syndrome and yang-deficiency-water-overflowing syndrome divide symptoms and signs into major and minor defining characteristics, by considering the variation of BNP. It has higher sensitivity, specificity and accuracy, which can be better applied in clinical practice.

GW25-e1441

A prospective, single-blind, randomized, controlled and multicenter clinical trial of standardized Western therapy alone or combined with traditional Chinese medication staging-differentiation treatment in patients with chronic heart failure: Results of the SECETCM-HF

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Objectives: To compare the efficacy of standardized western therapy alone and combined with traditional Chinese medication staging-differentiation treatment in patients with chronic heart failure (CHF).
Methods: In total, 340 CHF patients aged 40-79 years were randomized into control or treatment groups on admission. The trial included three periods of intervention and comprehensive evaluation. During the hospitalization, the control group received standard medication plus a polarized solution. Patients in the treatment group also received a Shenfu injection for qi-yang deficiency or a Shenmai injection for qi-yin deficiency along with a Danhong injection. After the discharge, all patients were continually treated with standardized medication plus the study drugs (Qiliqiangxin capsule for qi-yang deficiency and Buyiqiangxin tablets for qi-yin deficiency) or a placebo for 6 months. After 6 month visits, both groups received the standard medication alone.
Results: On discharge, the treatment group showed greater improvement in the six-minute walk test (6MWT; $P<0.05$) compared with the control group. After 12 months of follow-up, there was a time-group interaction for Minnesota Living with Heart Failure Questionnaire (MLHFQ) ($P=0.03$). The K-M curves for the cumulative survival rate showed no significant difference between the two groups ($P=0.208$), but the treatment group tended to have better survival. The adverse events and safety profile of the interventions were similar in the two groups ($P>0.05$).
Conclusions: Standardized medication plus TCM staging-differentiation treatment improves cardiopulmonary function and quality of life and have tend to increases the survival rate.

GW25-e2181

The effect of different altitude hypoxia on hemin oxygenase (HO) -1/CO-bilirubin system in elderly patients with congestive heart failure

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Objectives: High altitude (HA) presents inhospitable environmental conditions that adversely affects human physiology and metabolism. Changes in physiological functions are reported during high altitude exposure. yet, Few study have explored the effect of different altitude hypoxia (2260 m, 3300-3500 m) on hemin oxygenase (HO) -1/CO-bilirubin system in elderly patients (≥65 years old) with congestive heart failure, and to evaluate the relationship with left ventricular mass index (LVMI), mean wall stress (MWS) and cardiac function.
Methods: CHF patients (n=56) from high altitude were studied and 69 CHFs from moderate altitude (2260 m) were enrolled as controls, the serum levels of heme oxygenase-1 (HO-1), carbox yhemoglobin (COHb) were detected. Their Left ventricular ejection fraction (LVEF) LVMI and MWS were measured by echocardiography.
Results: Compared with moderate altitude group, the serum levels of HO-1 and COHb were obviously increased in high altitude group[HO-1 (127.8±12.8) vs (86.5±8.4) nmol/h.L; COHb (9.43±1.36) % vs (5.27±0.75) %respectively]. Similarly, LVMI and MWS were significantly higher in high altitude group [(182.3±8.7) vs (98.4±5.3) g/m^2 and (453.8±15.7) vs (299.4±10.1) dynes x10^3/cm^2, respectively]. there was a positive correlation between LVMI, MWS and the levels of HO-1, COHb (all $P<0.01$).
Conclusions: With the increase of altitude, CHF patients had higher levels of HO-1, COHb. the unbalance of oxidation/ antioxidation pay important roles in pathophysiological and pathogenetic mechanism of ventricular remodeling in CHF from high altitude.

GW25-e2531

To evaluate the effect of PCI in the patients who get the anterior myocardial infarction with ventricular aneurysm and the change of N-terminal B-type natriuretic peptide (BNP), serum high-sensitivity C-reactive protein (hs-CRP), and analysis of the aneurysm patients in perioperative period of PCI TCM syndrome type changes that can be used

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Objectives: To evaluate the effect of PCI in the patients who get the anterior myocardial infarction with ventricular aneurysm and the change of N-terminal B-type natriuretic peptide (BNP), serum high-sensitivity C-reactive protein (hs-CRP) in perioperative period of PCI, and whether these factors could be early predictors of ventricular aneurysm. Finally analysis of the aneurysm patients in perioperative period of PCI TCM syndrome type changes that can be used, conditioning, the Integrative inhibition of ventricular remodeling.
Methods: 43 cases with anterior myocardial infarction who underwent PCI, including 31 males and 12 females, average aged 58.3±12.1 (55-69) years old; previous PCI, severe infection, tumors, rheumatic diseases, infectious disease, liver and renal insufficiency excluded. Based on left ventricular angiography, the patients were divided into ventricular aneurysm group and control group. All patients were got the blood serum sample of hs-CRP, BNP before PCI, and hs-CRP 12-16 h or serum BNP after 48 h. Ultrasonic cardiogram, ECG, serum proBNP and hs-CRP were followed up in one month. First of all, according to EF and left ventricular internal diameter of 1 month after surgery in the ventricular aneurysm group, 25 people confirmed the significance of the PCI in ventricular aneurysm in patients. Followed by between ventricular aneurysm groups and control groups compare hs-CRP preoperative and postoperative 12-16 h, BNP preoperative postoperative 48 h and after one month, making a comparison confirmed that hs-CRP and BNP for ventricular aneurysm in patients undergoing PCI of the predictive value.
Results: (1) Compared pre-PCI and 48 h after PCI in Ventricular aneurysm group, the LVEF (Left ventricular eject fraction, LVEF; 0.547±0.101 vs 0.565±0.092, $P=0.513>0.05$) and LVEDD (left ventricular diastolic diameter, LVEDD; 52.52±6.838 vs 50.84±5.720, $P=0.351>0.05$) were not significant difference. But there were significant difference of LVEF (0.547±0.101 vs 0.602±0.072, $P=0.031<0.05$) and LVEDD (52.52±6.838 vs 47.16±4.119, $P=0.002<0.05$) between pre-PCI and one month after PCI. (2) Compared to Control group, serum hs-CRP pre-operative, postoperative 12-16h in the ventricular aneurysm group were significant increase (3.50 (1.37-12.38) vs 0.98 (0.27-5.10), 3.12 (1.85-9.41) vs 1.11 (0.21-3.33), P value were 0.012 and 0.01). Serum NT-proBNP pre-PCI, 48 h and a month after PCI in the ventricular aneurysm group were significant difference (1173.00 (518.75-198.50) vs 439.30 (123.33-912.83), 1008.00 (625.70-1914.50) vs 331.05 (138.75-781.08), 658.00 (498.00-1184.00) vs 349.00 (114.25-534.00), P value =0.013, 0.01, 0.003). (3) Preoperative TCM, more than 43 cases of patients with anterior myocardial infarction and blood deficiency, blood stasis - based PCI postoperative Qi Deficiency, blood stasis, heart yang lack of permit, Qi blood stasis and heat toxin attacks the card, liver and spleen do not tune the card.
Conclusions: (1) PCI can improve heart function to anterior myocardial infarction with Left ventricular aneurysm patients. (2) Serum hs-CRP and NT-proBNP maybe predictive value for anterior myocardial infarction with Left ventricular aneurysm patients. (3) 43 cases of patients before surgery, TCM Integrative conditioning the patients, which will help patients with early rehabilitation.

GW25-e4372

Xinshuitong Capsule via aquaporin-2 enhances Xinshuitong Capsule via aquaporin-2 enhances the diuretic effect in the chronic heart failure patients

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Objectives: Aquaporin-2 (AQP-2), which was involved in renal water reabsorption, was found high in the urine of chronic heart failure (CHF) patients. Xinshuitong Capsule (XC) has natriuretic effect in CHF patients, however, whether this effect related to AQP pathway remains unclear.
Methods: 36 NYHA IIand III CHF patients were randomized into three groups: routine therapy (RT), routine therapy plus XC (RX) or plus placebo (RP), all the patients received furosemide treatment (60 mg/d). Quality of life (QL) was assessed by SF-36 Health Status Survey. Urine AQP-2, 24 h urine volume, free water clearance (C_{H2O}) and fractional excretion of sodium (FE_{Na}), plasma vasopressin (AVP), renin, angiotensin II (Ang II), aldosterone (Aldo), atrial (ANP) and brain natriuretic peptides (BNP) were measured before or every day in the 15-day study.
Results: The groups were matched for age, gender, race, baseline indexes, and NYHA class stratification. Compared to RT or RP group, urinary AQP-2 excretion decreased in RX group from day 2, and the significant decrease was observed at day 6 and this level maintained until the end of the study (pmol / ml: day0, 92±21; day 1, 72±13; day 2, 55±10; day 3, 44±11; day 4, 35±11; day 5, 22±7; day 6, 15±5; day 6 vs. day 0, $P<0.05$). C_{H2O} lower in RX compared to RT or RP. Plasma levels of AVP (20%), renin (12%), Ang II (9%) and Aldo (17%) were lower in RX compared to RT and RP, however, plasma levels of ANP and BNP showed no difference among the three groups. QL and NYHA class in RX improved in varying degrees compared with the other two groups.
Conclusions: XC could increase urine output and inhibit water reabsorption via the APQ2 water channel, and XC also had pharmacodynamic actions on AVP and the renin-angiotensin-aldosterone system and synergistically enhanced natriuretic effects in CHF patients.

GW25-e0869

Research on Diagnosis Criteria of Qi-deficiency-blood-stasis Syndrome of Congestive Heart Failure Based on Literature Analysis, Clinical Retrospective Analysis, and Epidemiological Survey

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